

Goal 2 Review

- Kay is 7 miles east and 14 miles north of the campsite. Johnny is 6 miles south and 5 miles west. If they plan to meet each other halfway, where will they meet?
- A circle is drawn with the diameter endpoints at $(14, -10)$ and $(-12, 9)$. What is the length of the radius?

Directions: Rewrite each equation in the form $y = mx + b$. Then identify the slope of a line parallel to that line and perpendicular to that line.

$2y = 3x + 4$	$4y = 3x + 4$	$y - 2 = 3x$	$3y = 6x + 9$	$y + 4 = x$
// slope: ⊥ slope:	// slope: ⊥ slope:	// slope: ⊥ slope:	// slope: ⊥ slope:	// slope: ⊥ slope:
$y + 3 = 2x$	$2y = 8x + 4$	$-y = 2x + 1$	$y - 1 = \frac{2}{3}x$	$y - \frac{1}{4}x = 8$
// slope: ⊥ slope:	// slope: ⊥ slope:	// slope: ⊥ slope:	// slope: ⊥ slope:	// slope: ⊥ slope:

- Are the lines $-2x + y = 4$ and $y = 2x - 7$ parallel, perpendicular or neither?
- What is the slope of the line perpendicular to $x = -3$?
- Write the equation of the line that is parallel to $-2y = 4x - 10$ and goes through the point $(0, 3)$.
- Write the equation of the line that is perpendicular to $3x + 4y = 16$ and goes through the point $(2, -5)$.